

## Community Influence on Food Assistance and Dietary Choices

### *Geographic Variation in Food Stamp and Other Assistance Program Participation Rates: Identifying Poverty Pockets in the South*

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Temporary Assistance to Needy Families (TANF) rolls declined dramatically following the 1996 welfare reforms, while Supplemental Security Income (SSI) enrollment increased slightly. Since Food Stamp participation rates are considerably lower among SSI recipients than among TANF recipients, Food Stamp Program (FSP) enrollment was significantly affected by welfare reform even though it was not directly targeted by the legislation. Understanding changes in FSP participation benefits from a simultaneous analysis of participation in TANF and SSI.

Food stamp participation declined in the late 1990s along with TANF participation, although by a smaller magnitude. Given that the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 for welfare reform made minimal adjustments in the FSP compared to changes in welfare programs, the reductions in FSP participation may seem puzzling. As a result of the observed reductions in participation in both programs, evaluating the link between TANF participation and FSP participation may help explain why FSP participation declined so sharply during this period.

This project directly examines the FSP-TANF participation link and the FSP-SSI participation link, using county-level participation data in these three programs. The study included a sample of states throughout the United States and all the Southern States. The model controlled for demographic, economic, and program characteristics most likely to affect both eligibility and participation. Study results indicate that a strong relationship exists between the level of FSP participation and both TANF and SSI participation. The results indicate that FSP-TANF link in 2001 appears stronger than the link between Assistance to Families with Dependent Children (AFDC) participation and FSP participation in 1995.

Results also show that FSP participation responds to the different options states now have as a result of welfare reform. States have greater flexibility to tailor welfare benefits, within parameters defined by Federal regulation, creating cross-State differences in how income, resources, eligibility, and

assets are calculated to determine FSP eligibility. This study finds that county administration has a negative impact on FSP participation, while State administration has a positive impact. Exempting child support from income and expanded categorical eligibility each increase FSP participation. State-required training and employment appear to have a significant negative impact on FSP participation, particularly in the Southern States. One-Stop Centers—multiple agencies co-located to provide services—appear to have little impact on participation, at least in the South. The longer the certification period, the higher the FSP participation rate appears.

The study examined the change in FSP participation, both in absolute terms (change in the number recipients per 1,000 residents) and percentage terms, while controlling for the levels and changes in both TANF and SSI participation. Absolute changes in FSP participation between 1995 and 2001 are generally negatively related to the levels of both AFDC and SSI participation in 1995. However, changes in FSP participation are positively related to changes in AFDC/TANF participation, suggesting that counties with large reductions in welfare case loads have large reductions in FSP caseloads as well. This result, however, is not robust. When the change in FSP participation is measured as a percentage change, larger percentage reductions in welfare participation result in smaller percentage reductions in FSP participation. One interpretation may be that FSP and welfare benefits might serve as substitute benefits rather than complementary benefits.

## ***Assessing Nutritional Habits of Ojibwa Children***

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The Keweenaw Bay Indian Community is a federally recognized Indian tribe located on the L'Anse Indian Reservation in Baraga County, Michigan. To date, no nutrition screening or other health assessments have been conducted on any of the early childhood programs on the reservation. The Keweenaw Bay Ojibwa Community College carried out this project to utilize traditional Ojibwa teachings to change the eating habits of children through their families, daycare providers, and to develop an early childhood education program.

The project goals include:

- (1) Documenting the prevalence of health diseases and obesity among tribal youth
- (2) Reducing the incidence of chronic health diseases
- (3) Creating programs that integrate Ojibwa culture to enhance learning that in turn would bring about healthy lifestyle changes.

The project developed nutrition surveys for families of children ages 0-4 years. Distribution of the surveys proved difficult since tribal operations do not have mailing lists for these children. Assessment forms were distributed through childcare centers, a youth center and faculty, staff, and students of the Keweenaw Bay Ojibwa Community College. Survey results show that most families ate three meals and two snacks per day, ate candy four to five times a week, and ate very little traditional Ojibwa food. Families in the study exercised one to two times per week.

A database of menus used at childcare centers was created to determine nutrient content and consumption of traditional Ojibwa foods. The Food Guide Pyramid was used in developing the menus, which rotated on a 6-week basis. Traditional foods were served infrequently. The research found that eating took up a major portion of the childcare day, with breakfast served at 9 am, snack at 10:30 am, lunch at 12 noon, and a snack at 2 pm, with the children going home at 3 pm. The project distributed Ojibwa recipe books to encourage use of traditional foods in menu planning. Barriers to increased use of traditional food included seasonality and cost.

An Ojibwa spiritual leader taught Ojibwa children at a reservation childcare center about nutrition, plants, and other culturally relevant topics targeted to a school-age audience. This activity resulted in the development of a new 4-

credit course at the Community College on Fundamentals of Human Nutrition. The course incorporates both contemporary nutritional and traditional Ojibwa information to reduce chronic health diseases.

To encourage the preparation of traditional Ojibwa foods as a healthier alternative to current diets, the *Ojibwa Recipe Book* developed through the project is being made available to the parents who completed the nutrition surveys. However, since many families rely on commodity foods or food stamps, financial limitations may make it difficult to change eating behaviors. The nutrition project will be integrated with the Community College website to increase access to study findings and the *Ojibwa Recipe Book*.

## ***Children and Nutrition: The Growing Health Epidemic of Diabetes in Indian Country***

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This paper provides a literature review that examines the prevalence of diabetes among American Indian children, and compares it to the incidence found at the Fort Peck Indian Reservation in Montana. It describes the activities of the Healthy Schools Summit, an effort designed to educate Indian children about the role that nutrition and exercise can take in controlling diabetes, and concludes with recommendations from the Healthy Schools Summit.

American Indians are experiencing a surge in the prevalence of obesity and diabetes. Diabetes, especially adult-onset, or type 2, diabetes, is a growing health problem throughout the region and the country, but indications are that it is more serious on the Fort Peck Indian Reservation and on other Montana Indian Reservations. Risk factors for type 2, or adult-onset, diabetes, include older age, obesity, physical inactivity, and race/ethnicity. However, diabetes is beginning early among American Indians, between the ages of 2 and 5. Approximately 13 percent of American Indian preschool children are overweight, with up to 40 percent of American Indian and Alaskan Native children reportedly overweight. An especially worrisome trend in childhood obesity is the sharp rise in type 2 diabetes, normally found only in adults.

Montana's American Indians experience a higher prevalence of diabetes, smoking, and obesity compared to whites, according to a report of the Montana State Advisory Council on Food and Nutrition issued in 2001. Diabetes ranks seventh among the leading causes of death for Montanans, but fourth for American Indians.

During spring 2003, health officials from seven reservations in Montana formed the Healthy Schools Summit to address childhood diabetes. The Summit developed strategies to reduce the rate of diabetes and its complications, including early screening and treatment, utilization of Tribal College Wellness Centers for exercise and physical fitness, Indian Health Service clinic visits, and clinical trials to prevent the onset of type 2 diabetes among individuals at most risk for developing the disease.

Dietary habits contribute to development of obesity, with the diet of many American Indians characterized by frequent intake of nonindigenous protein,

combined with a high proportion of low-nutrient-density carbohydrates and fats. The Summit worked with three Fort Peck Reservation schools to promote a healthier school food environment. In cooperation with the Indian Health Service, the Summit is developing a software program to track and analyze health-screening data from reservation schools. The Summit also actively collaborated with reservation schools to educate Indian communities about healthier school environments, including educating parents to foster family eating practices that can reduce the incidence of obesity.

Key recommendations resulting from the project include:

- (1) Prevention of diabetes on the Fort Peck Indian Reservation should begin in the classrooms and in the home using targeted information appropriate for the intended audience.
- (2) All agencies whose mission includes diabetes prevention should build strong coalitions to maximize resources and share information that can be used to educate at-risk populations.
- (3) Special efforts should be made to involve all children in physical activity.
- (4) Health services need to be designed to engage entire families in physical activities.
- (5) Diabetes prevention outreach should target sedentary and at-risk individuals and their families to provide nutrition education and involve them in physical activity.

## ***Participation of Latino/Hispanic Population in the Food Stamp Program in the South***

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The Hispanic population is growing rapidly throughout the United States, particularly in the Southern States. The Hispanic population is characterized by high poverty rates among children and the elderly compared to other major demographic groups. Further, the Hispanic population has relatively low educational levels, is disproportionately low income, lacks proficiency in English, and often requires a variety of public assistance programs to support their families. Many in the Hispanic population are not aware of the Food Stamp Program (FSP) and their potential eligibility.

The study objectives were to:

- (1) Develop a socioeconomic and demographic profile of the Latino/Hispanic population in the South
- (2) Examine the FSP participation of the Hispanic population in Tennessee
- (3) Identify barriers to FSP participation by eligible the Hispanic population
- (4) Develop programs and strategies to enhance FSP participation among Hispanics.

This study uses Census data to describe poverty rates among the U.S. Hispanic population; State administrative data from Tennessee to analyze FSP participation rates among Hispanics; and survey data collected from Hispanics in Tennessee and Kentucky to describe their participation in FSP.

Census data indicate that poverty rates among Hispanics were higher than those found in the total U.S. population from 1972 to 2003. The highest poverty rate for the total population was 15 percent in 1983. By comparison, the lowest poverty rate for the Hispanic population was 21 percent in 2001, down from a high of 31 percent in 1994. The poverty rate was about 30 percent among Hispanic children and 20 percent among the Hispanic elderly population.

Analysis of Tennessee administrative data showed that participation of Hispanics in the FSP during January-December 2003 increased rapidly, compared to the total population. Total participation increased by 11 percent, but increased by 32 percent for the Hispanic population. Hispanic children

increased their participation by 31 percent, exceeding the 20 percent increase for Hispanic adults. In the total population, both children and adults increased their participation by 11 percent. Hispanic participation increased by 35 percent in metropolitan counties, by 24 percent in counties adjacent to metropolitan counties, and by 10 percent in nonadjacent counties. Similarly, participation for the total population increased more in metropolitan counties than in nonmetropolitan counties. The increase for metropolitan counties was 12 percent, lower than the 35 percent increase in Hispanic population.

A survey of Hispanics conducted by the researchers in conjunction with the State Department of Human Services and a faith-based organization serving the Hispanic population in Tennessee and Kentucky showed that government assistance (20 percent), including food stamps, were a primary food source for Hispanics, followed by religious organization (18 percent) and friends (11 percent). Twenty-two percent of Hispanic respondents indicated that they did not know about the FSP, and 23 percent indicated they did not know whether they were eligible.

The results also indicate that 52 percent of the respondents were not comfortable applying for food stamps. One factor may be that the average waiting time when applying for food stamp was 2.86 hours, with 63 percent of the respondents indicating that the waiting time was excessive. The main sources of information about food stamps for the Hispanic population are: church/religious organizations (33 percent), followed by friends (32 percent) and radio/TV/newspapers (7 percent). Respondents also indicated that information about the program would have a broader audience if the FSP used radio/TV/newspapers and religious organizations more frequently as an outreach mechanism. Forty-four percent suggested that participation in the FSP could increase if Spanish-speaking staff were increased, with 20 percent indicating more Spanish materials should be made available, and 12 percent stating that more friendly FSP office staff would increase participation.

***Use of a “Contract for Change” To Evaluate the Effectiveness of Nutrition Education to Increase Fruit and Vegetable Consumption in Low-Income Women***

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The rates of chronic diseases, such as cardiovascular disease, type 2 diabetes mellitus, and obesity, continue to rise in the United States. Diet is a modifiable risk factor known to significantly affect chronic disease risk. Preventative measures, including improved dietary quality of Americans, are a key focus of nutrition public policy and education. The challenge for government and nutrition educators is how to encourage at-risk populations to make positive dietary and lifestyle changes and to overcome barriers to fruit and vegetable consumption.

The purpose of this research was to determine the effectiveness of pairing personalized goal-setting exercises within community-based nutrition education programs to promote behavior change in a low-income population. It was hypothesized that through an increased sense of self efficacy, the goal-setting group would have the following outcomes:

- (1) Advance within the “stages of change” model toward accepting dietary change
- (2) Increase produce consumption more than the control groups
- (3) Increase markers of fruit and vegetable intake more than the control groups.

This intervention targeted English-speaking, low-income women who were potential recipients of University of California Cooperative Extension (UCCE) Expanded Food and Nutrition Education (EFNEP)/ Food Stamp Nutrition Education (FSNE) programs. After recruitment, 65 women were randomly assigned to a control group or to one of the treatment groups, an “education” group, or a “contract” group. They were asked to attend four 1-hour classes over 4 weeks. The control group received the “Gateway to a Better Life” series discussing money management.

The education group received the “Food Guide Pyramid” series currently used by California EFNEP/FSNE. The contract group received the “Food Guide Pyramid” series as well, and completed a “Contract for Change” goal-setting exercise at the initial meeting. The control group was reminded of their goals at subsequent classes. The “Contract for Change” tool was adapted from previous work demonstrating its effectiveness in changing

dietary behavior. Validated questionnaires assessed study participants' readiness to make dietary changes, to determine food consumption patterns, and to estimate actual fruit and vegetable consumption. Outcome measures were assessed three times, at both pre- and post-intervention, and with a final assessment occurring 1 month after intervention to evaluate maintenance of the anticipated dietary changes. The completion rate for the full program intervention was 58 percent.

The goal-setting contract group made significantly more progress toward acceptance or readiness to increase vegetable consumption in comparison with the control group. The results for the education group were not significantly different from the other two groups. A trend toward increased vegetable consumption was observed in the contract group. Data regarding actual consumption of fruit showed a significant increase from baseline to final time points and at one-month follow-up for the contract group in comparison to the education group. Estimates of beta-cryptoxanthine and vitamin C intake (markers of fruit intake) significantly increased in the contract group, supporting these observations.

The research results demonstrate that tailored goal-setting exercises, paired with nutrition education, can be an effective tool for nutrition professionals to facilitate dietary change in a low-income population. This approach can be utilized in existing community-based education programs targeting low-income women without increasing programmatic cost, or modifying local economic or societal conditions. The California State EFNEP/FSNE program has adopted the "Contract for Change" as a tool for county educators.

Findings, however, are limited by the relatively small number of study participants, and future research should consider certain factors at the study design stage. The primary challenge in conducting the research was participant recruitment, as the original goal of 180 women from 7 counties resulted in 38 women in 5 counties. It is believed that three factors contributed to actual participation not reaching anticipated participation:

- (1) The original plan was to collect blood samples as a biomarker of dietary change. However, some potential participants declined when learning about the blood draw. While the biochemical component of the study was ultimately dropped to alleviate participant concerns and streamline study procedures, considerable time had been lost in the research timetable.
- (2) The study design requirement that all participants speak English reduced the participant pool, and resulted in the withdrawal of two counties.
- (3) The diversity of the target populations proved to be an additional barrier to recruitment. While training sessions were held to review the study protocol to make needed changes, the protocol did not accommodate the full diversity of participants. Future use of a new curriculum might consider recruiting participants from a more homogenous area to refine the curriculum and allow more precise evaluation of its effectiveness before expanding its use to a more diverse set of participants.

***Adapting EFNEP to Meet the Changing Needs of Food-Assistance Eligible Families: Investigating the Results of Program Responses to Welfare Reform***

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This research was designed to investigate how the Expanded Food and Nutrition Education Program (EFNEP) adapted to keep services for low-income participants relevant, accessible, and effective during the period of welfare reform. EFNEP's adaptation strategies were examined using qualitative assessment of the experiences of EFNEP personnel and quantitative analysis using program monitoring data on implementation and outcomes.

To gather the study data, indepth interviews were conducted with State EFNEP coordinators and selected county or regional EFNEP supervisors in three States. Six focus group discussions with EFNEP paraprofessional Community Nutrition Educators (CNEs) and two interviews with key informants were conducted in one State. Verbatim transcripts were analyzed qualitatively. A national dataset of selected program variables for the period of 1997-2003 was created from State-level data excerpted from the national EFNEP monitoring system. Regression analysis was used to examine trends over time in program implementation and outcomes at the national and State levels. The study also examined the characteristics of a subsample of 10 States with the strongest trends (5 positive, 5 negative) in behavior change score, and the proportion of program graduates reporting an improvement in dietary practices between program entry and completion.

EFNEP personnel reported that families transitioning to work continued to need EFNEP, but had little time to attend nutrition education classes. Low-income working parents who have less time for food preparation and acquisition reportedly need information on managing food resources, preparing quick healthy meals for home and work, and making good choices when eating away from home. To reach these participants, EFNEP collaborated with other agencies to deliver services to groups formed for other purposes, offered programs on weekends or evenings, and identified new audiences. Collaborating agencies included adult education and English language programs, residential programs addressing various needs (e.g., domestic abuse, homelessness, mental disabilities, and drug rehabilitation), welfare-to-work training programs, and occupational groups (e.g., daycare providers). CNEs now teach more groups, reach more diverse audiences, and address mandated audiences who must attend an agency's program to

avoid sanctions (such as loss of Temporary Assistance for Needy Families (TANF) benefits). Sustained collaboration with agencies serving similar populations and interested in providing nutrition education to their clients was critical to successful adaptation. This collaboration was difficult in some rural areas where few agencies were available to collaborate with EFNEP and where low population density and lack of transportation limited attendance at group educational sessions.

Most EFNEP personnel felt that EFNEP was adapting successfully to serve potential participants. The challenges posed by interagency collaboration included constraints on the number and length of lessons, resulting in less time for education and hands-on activities. Some personnel were concerned that shorter program duration and group methods could reduce impact. To preserve program quality, some sites established standards for minimum length and frequency of lessons and provided extra individual or home-study lessons for people seeking more information and support. Training CNEs to work with new audiences, revising curricula to focus on priority topics, and subdividing large groups were other strategies to maintain effective teaching. Such strategies required resources and were not practiced equally in all sites. Program impact may depend on whether a supervisor is primarily concerned with program survival and maintenance of large case-loads, or employs strategies to sustain both high participation rates and program quality.

Analysis of national EFNEP monitoring data confirmed many of the qualitative findings. The proportion of participants reached by group (rather than individual) methods increased from under 60 percent in 1997 to almost 72 percent in 2002-03. Characteristics of EFNEP participants also changed. From 1997 to 2003, there was a reduction in the proportion of participants living in rural areas or small towns, an increase in the proportion of Hispanics, and a decrease in the proportion of African Americans.

Nationally, the percent of graduates reporting an improvement in dietary behavior between program entry and completion remained relatively constant, although trends in individual states varied widely. The rate of program completion increased, probably due to inclusion of more mandated participants and changes in graduation criteria associated with group methods. The size of the Federal funding allocation to a State was the program characteristic that best distinguished programs whose participants improved their dietary behavior (from inadequate to adequate by program graduation) from those state programs whose participants did not demonstrate improvement in dietary behavior.

EFNEP has developed innovative strategies to adapt to welfare reform and to contribute to its success by helping families practice healthy nutrition and resource management as they transition to work. While the trends identified in this study occurred during the era of welfare reform, EFNEP was also influenced by other socioeconomic and policy conditions. Continued funding constraints have implications for program access, quality, intensity, and duration.

These analyses illustrate how data from EFNEP's extensive program monitoring system can be used to assess changes in program implementation and behavior change outcomes. Research would be enhanced if program monitoring data were complemented by an external EFNEP evaluation of contrasting program approaches and multiple outcomes among participants and nonparticipants.